

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 3D wherein the indicator "105" has been amended to read, "130."

Attachment: Replacement sheet

REMARKS

Reconsideration and withdrawal of the objections and rejections set forth in the Office Action dated February 5, 2005 are respectfully requested. In the Office Action, Claims 10-17 are rejected under 35 USC 103(a) as being unpatentable over Yoo US 6,818,531. Applicant has amended the specification, drawing, claims and objected matter noted by the Examiner.

The Claims 1-9 are allowed by the Examiner. Applicant confirms the allowable subject matter claims 1-9 noted by the Examiner. A Notice of Allowance is, therefore, respectfully requested.

Rejections under 35 U.S.C. § 103

Yoo discloses a "method for manufacturing vertical GaN light emitting diodes". In the Office Action, Examiner concedes that Yoo fails to teach etching of the epitaxial layer, the reflecting layer and the metal layer, but it would have been obvious to one with ordinary skill in the art at the time of the invention to modify Yoo and etch the epitaxial layer, the reflecting layer and the metal layer for the benefit of minimizing the level of stress. The Examiner points to Yoo at column 6, lines 25-37.

Applicant respectfully disagrees with this characterization by the Examiner. As seen in col. 6, lines 2-7 of Yoo, "in view of the luminance of the light emitting diode, differently from the conventional vertical light emitting diode, the vertical light emitting diode of this embodiment does not require a step of selectively etching the active layer" (emphasis added). Yoo expressly indicates that the step of selectively etching is not required. Therefore, Yoo suggests not to perform the step of selectively etching.

Further, in col. 6, lines 25-37 of Yoo, "the GaN light emitting structure 125 is cut into a plurality of units with a designated size (S) so that the n-type GaN clad layer 125a of a thickness (t) of at least approximately 100 angstrom remains in order to minimize the level

of stress exerted on the unit light emitting structure by irradiating a laser beam thereon." Further, in col.8 lines 4-6 of Yoo, it states "as shown in FIG. 3f, vertical GaN light emitting diodes 130 are obtained by perfectly cutting the resulting structure of FIG. 3e into plural units." In other words, the GaN light emitting diodes 130 of Yoo is actually formed by utilizing a cutting method, and the GaN light emitting structure 125, conductive adhesive layer 124 and conductive substrate 131 are not formed by a step of selectively etching.

Selective etching is different from cutting. Therefore, there is no any suggestion or motivation of Yoo that indicates the limitations of etching the epitaxial layer, the reflecting layer and the metal layer cited in the claims 10.

Further, Yoo does not disclose that the reflecting layer is Al, Rh, Pt, Pd, Ni, Ti, Co, or the combination thereof. Yoo also does not disclose that the metal layer is Rh, Pt, Pd, Ti, Co, or the combination thereof.

Yoo do not teach expressly the entirely subject matter of the claimed invention, and it cannot found any motivation or suggestion from Yoo at the time of the invention filed to teach the claimed invention. It would have been non-obvious to one with ordinary skill in the art at the time of the invention.

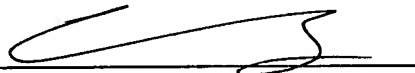
Claims 11-17 are dependent claims of claim 10, in view of the foregoing remarks, Applicant respectfully request that the Examiner withdraw his rejections of Claims 10-17 and the case be passed to issuance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0665, under Order No. 386998046US from which the undersigned is authorized to draw.

Dated:

5/3/05

Respectfully submitted,

By 

Chun M. Ng

Registration No.: 36,878

PERKINS COIE LLP

P.O. Box 1247

Seattle, Washington 98111-1247

(206) 359-8000

(206) 359-7198 (Fax)

Attorney for Applicant

Attachments

Application No.: 10/773,122

Docket No.: 386998046US

REPLACEMENT SHEET

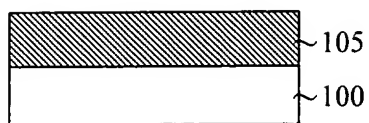


FIG. 2A

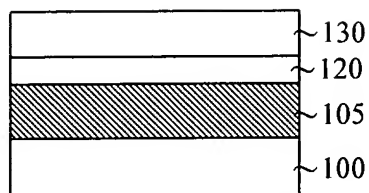


FIG. 3A

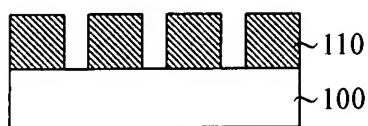


FIG. 2B

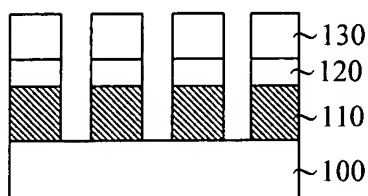


FIG. 3B

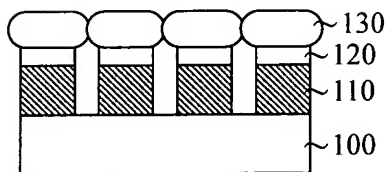


FIG. 2C

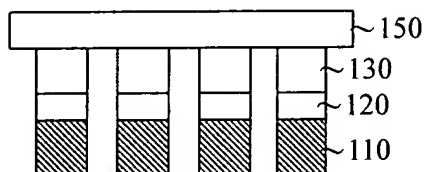


FIG. 3C

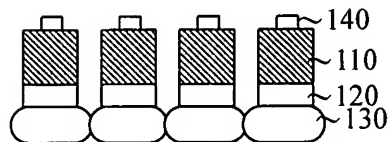


FIG. 2D

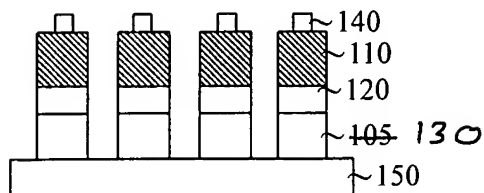


FIG. 3D